

**CLAIMS**

- 5        1. System for consulting and/or updating a record stored in a first database (33, 36),  
the said record comprising one or a plurality of resource records (RR), the said first database  
being stored by a domain name server, referred to as a DNS server, or a directory server,  
referred to as an LDAP server, able to be accessed by indirection from a DNS server,  
characterised in that it comprises:
- 10      - communication means (1150, 53-59, 61, 63) enabling the said system to receive from  
a telecommunication terminal a request for consultation and/or modification of the said record  
or a programming of such a request;
- 15      - control means (1175, 74, 75) adapted to determine, from said consultation and/or  
modification request transmitted to the said system or previously programmed in the said  
system, a domain name and an operation to be performed on the said record;
- 20      - protocol management means (1162, 62, 64) adapted to seek, from the said domain  
name, the IP address of the said server storing the said first database and, according to the said  
operation, to transmit to the said server a request to read or update the said record.
- 25      2. System according to Claim 1, characterised in that it comprises authentication  
means (1173, 73) adapted to authenticate at the application level the sender of the said request  
from authentication information stored in a second local or remote database (1170, 70).
- 30      3. System according to Claim 2, characterised in that, the sender of the said request  
having been authenticated, the said protocol management means are adapted to transmit a  
consultation request according to the DNS protocol (DNS Query) to the said DNS server, the  
request having as its argument the said domain name, and to receive a first response from the  
said server.
- 35      4. System according to Claim 3, characterised in that, the first database being stored  
by the said DNS server, the control means are adapted to extract from the said first response  
information contained in the said record and to format it in order to transmit it to the said  
terminal via the said communication means.

5. System according to Claim 3, characterised in that, the first database being stored by the said LDAP server, the control means are adapted to extract the address of the LDAP server from the said first response.

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6. System according to Claim 5, characterised in that the said protocol management means are adapted to transmit a consultation request according to the LDAP protocol (LDAP Search) to the said LDAP server and to receive from this a second response.

10 7. System according to Claim 6, characterised in that the control means are adapted to extract from the said second response information contained in the said record and to format it in order to transmit it to the said terminal via the said communication means.

15 8. System according to Claim 4, characterised in that, the control means having determined an updating operation, the protocol management means are adapted, on instruction from the said control means, to transmit an update request according to the DNS protocol (DNS Update).

20 9. System according to Claim 8, characterised in that the protocol management means are adapted to receive an updating confirmation/validation response from the DNS server and the control means are adapted to format this confirmation/validation response before ordering its transmission to the said terminal via the said communication means.

25 10. System according to Claim 7, the control means having determined an updating operation, the protocol management means are adapted, on instruction from the said control means, to transmit an updating request according to the LDAP protocol (LDAP Modify).

30 11. System according to Claim 10, characterised in that the protocol management means are adapted to receive an updating confirmation/validation response from the LDAP server and the control means are adapted to format this confirmation/validation response before ordering the transmission thereof to the said terminal via the said communication means.

12. System according to Claim 2, characterised in that the control means are adapted to store in the second database a configuration profile transmitted via the said communication means, the said profile consisting of one or more programmed modification requests, each programmed modification request being associated with at least one time range and/or one  
5 geographical area.

13. System according to Claim 12, characterised in that the said control means comprise a configuration automatic controller (74) adapted to scrutinise the said second database and to test whether a measurement of time belongs to the said range and/or a location  
10 of the terminal belongs to the said area, and, in the case of a positive result, to extract the associated programmed modification request and to transmit to the said protocol management means a request to consult the first database.

14. System according to Claim 13, characterised in that the said protocol management  
15 means are adapted to formulate the said consultation request according to the DNS protocol (DNS Query) or LDAP protocol (LDAP Search) and to receive, from the server storing the database, the content of the said record.

15. System according to Claim 14, characterised in that, if the content of the said  
20 record is not in accordance with the said programmed modification request, the said control means determine an operation to be performed on the said record in order to make it conform to the said programmed modification request and the said protocol management means formulate, according to the said operation, a request for updating the said first database according to the DNS or LDAP protocol and routing to the server storing the said first  
25 database.

16. System according to Claim 15, characterised in that the said protocol management means are adapted to receive an updating confirmation/validation response from the server storing the first database and in that the control means are adapted to detect the said  
30 confirmation/validation response and to store it in history form in the second database.

17. System according to Claim 16, characterised in that the said control means are adapted to receive a request to read the said history, and, after authentication of the sender of

the said request via the said authentication means, to transmit to him the content of the said history via the said communication means.

18. System according to Claim 17, characterised in that the said protocol management  
5 means are adapted to receive an updating confirmation/validation response from the server  
storing the first database and in that the control means are adapted to detect the said  
confirmation/validation response and to transmit a report on the said operation to a  
notification terminal.

10 19. System according to one of the preceding claims, characterised in that the said  
protocol management means are adapted to use a DNS protocol of the secure type (DNSSec).

20. System according to one of the preceding claims, characterised in that it  
comprises an STN (Switched Telephone Network) and/or ISDN (Integrated Service Digital  
15 Network) interface (51) connecting the said communication means to the STN/ISDN network.

21. System according to Claim 20, characterised in that the said communication  
means comprise a voice synthesis module (55) or a voice file reproduction module (56)  
making it possible to generate a voice menu and to reproduce one or more items of  
20 information on the said recorded voice form, and a recognition module (54) for DTMF (Dual-  
Tone Multi-Frequency) signals and/or a voice recognition module for recognising a choice in  
the said voice menu.

22. System according to Claim 20, characterised in that the said communication  
25 means comprise a videotex server (57) making it possible to manage a menu, to enter a request for consultation or modification of the said record and to reproduce one or more items of information about the said record or an update confirmation/validation response in the form of videotex sequences.

30 23. System according to Claim 20, characterised in that the said communication  
means comprise an SMS message sending/receiving module (58) for receiving in the form of a message a request for consultation or modification of the said record and to transmit in the form of a message one or more items of information about the said record or an updating

confirmation/invalidation response.

24. System according to Claim 20, comprising an ISDN interface (51), characterised in that the communication means comprise a UUI user to user information sending/receiving module (53), for receiving in the form of a said item of UUI information, a request for consultation or modification of the said record and to transmit in the form of a said item of UUI information one or more items of information about the said record or an updating confirmation/invalidation response.

10 25. System according to Claim 20, characterised in that it comprises a fax module (59) for transmitting one or more items of information about the said record or an updating confirmation/invalidation response.

15 26. System according to one of Claims 1 to 19, characterised in that it comprises an IP interface (60).

20 27. System according to Claim 26, characterised in that the communication means comprise a web server adapted to transmit an authentication form, a form for entering a request for consultation or modification of said record, representing one or more items of information about the said record or an updating confirmation/invalidation response in the form of web pages.

25 28. System according to Claim 26, characterised in that the communication means comprise an SMTP (Simple Mail Transfer Protocol) server adapted to receive in the form of e-mails a request for consultation or modification of the said record and to transmit in the form of e-mails one or more items of information about the said record and/or an updating confirmation/invalidation response.

30 29. System according to one of the preceding claims, characterised in that the control means are adapted to determine the said domain name from a subscriber identifier.

30. System according to Claim 29, characterised in that the said subscriber identifier is the E.164 telephone number of the said subscriber.

31. System according to Claim 29 or 30, characterised in that the said control means are adapted to extract information and to determine according to the said request an operation to be performed on a resource record of the NAPTR (Naming Authority PoinTeR) type.

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32. System according to one of the preceding claims, characterised in that the said control means are adapted to extract information and to determine according to the said request an operation to be performed on one or more resource records of the A, NS, MD, MF, CNAME, SOA, MB, MG, MR, NULL, WKS, PTR, HINFO, MINFO, MX or TXT type.

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**Fig. 1**

**Level 0 (root)**

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**Level 1 (country)**

**Level 2 (tranche of N<sup>os</sup>)**

**Fig. 2A****ISDN (10)**

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**STN (11)****GSM (12)**

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Fig. 2B

(10) to (12) see Fig. 2A

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40      Domain

31      niv. = level

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Fig. 3A

ISDN/STN

**Fig. 3B**

10      ISDN

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11      STN

31      niv. = level

Fig. 4

**Telephone**

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52      Calling automatic controller

55      Voice synthesis

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73      Authentication

70      Database

75      ENUM script

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62      DNS protocol

32      DNS protocol

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33      Database

**Loop**

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Fig. 5

See Fig. 4

Fig. 6

63      Web server

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See also Fig. 4

Fig. 7

## 57 Minitel server

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See also Fig. 4

Fig. 8

61 e-mail server

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See also Fig. 4

**49**

**Fig. 9**

**53      UUI**

**5**

**See also Figs. 4 and 5**

Fig. 10

74 Configuration automatic controller

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See also earlier figures

Fig. 11

		Telephone
5		PC
		Fax
	52	Calling automatic controller
10	55	Voice synthesis
	59	Fax module
	58	SMS
15	61	e-mail
	74	Configuration automatic controllers
20	70	Database
	62	DNS protocol
	32	DNS protocol
25	33	Database

**Fig. 12**

64 and 33      LDAP protocol

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See also earlier figures

Fig. 13

See earlier figures